

## **REMARKS / DISCUSSION OF ISSUES**

Claims 1-13 are presently under consideration, with claims 1 and 13 in independent form.

### **Objection to the Drawings**

Applicants gratefully acknowledge the indication of acceptance of the changes to the drawing previously presented.

### **Rejections Under 35 U.S.C. § 103**

Claims 1-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Iwauchi, et al.* (U.S. Patent 5,841,492) in view of *Liang, et al.* (U.S. Patent Publication 2002/0126249). For at least the reasons set forth herein, Applicants respectfully submit that claims 1 and 13 and the claims that depend therefrom are patentable over the applied art.

Analysis of obviousness under 35 U.S.C. §103 requires determination of the scope and content of the prior art, the differences between the prior art, and the claims at issue, and the level of ordinary skill in the pertinent art. *W.L. Gore & Associates, Inc. v. Garlock, Inc.* 220 USPQ 303, 311 (1983) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (CAFC 1966)). Moreover, there must have been something present in the teachings of the prior art to suggest to one skilled in the art that the claimed invention would have been obvious. *W.L. Gore & Associates* at 311 (citing *In re Bergel* 130 USPQ 206, 208 (CCPA 1961); and *In re Spinnoble* 160 USPQ 237, 244 (CCPA 1969)). Furthermore, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is a reason,

suggestion or motivation do so. The reason, suggestion or motivation may come from references themselves; from knowledge of those skilled in art that certain references or disclosures in references are known to be of interest in the particular field; or from nature of the problem to be solved to do so found in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *Pro-Mold and Tool Co. v. Great Lakes Plastics Inc.* 37 USPQ2d 1626 (CAFC 1996). Moreover, prior knowledge in the field must be supported by tangible teachings of reference materials. *Cardiac Pacemakers Inc. v. St. Jude Medical Inc.* 72 USPQ 2d 1333, 1336 (CAFC 2004).

However, hindsight is never an appropriate motivation for combining references and/or the requisite knowledge available to one having ordinary skill in the art. To this end, relying upon hindsight knowledge of applicants' disclosure when the prior art does not teach nor suggest such knowledge results in the use of the invention as a template for its own reconstruction. This is wholly improper in the determination of patentability. *Sensonics Inc. v. Aerosonics Corp.*, 38 USPQ 2d 1551-1554 (CAFC 1996), citing *W.L. Gore & Associates, Inc. v. Garlock, Inc.* 220 USPQ 303. Moreover, the determination of obviousness cannot be based on the hindsight combination of components selectively culled out from the prior art to fit the parameters of the claims at issue. *Crown Operations International Ltd. v. Solutia Inc.* 62 USPQ2d 1917, 1922 (CAFC 2002).

Claim 1, is drawn to a subtractive display device having at least two switchable electro-optic components. The "...the electro-optical components further comprise at least two switchable electro-optical layers, comprising at least one first fluid and a second fluid respectively, and wherein the second fluid and the first fluid are immiscible."

Claim 13 includes a similar feature.

The applied art does not disclose at least the noted features of claim 1.

**1. The applied art fails to disclose at least two switchable electro-optical layers as claimed**

The Office Action relies on column 6, lines 55-67 of *Iwauchi, et al.* in the rejection of the claimed two switchable electro-optical layers.

As amended, claims 1 and 13 recite at least two switchable electrooptical layers comprising at least one first fluid and a second fluid, respectively. Respectfully, *Iwauchi, et al.* may disclose two electro-optical layers (namely layers 4 and 5), but does not disclose that these layers comprises at least one first fluid and a second fluid. *Liang, et al.* does not cure this defect. In particular, the overcoating layer and the LC layer of *Liang, et al.* are not both electro-optical layers. Rather, one layer is an LC layer and the other is an overcoating. Applicants respectfully and strongly disagree with the Examiner's position to the contrary. In the portion of the Office Action designated "Response to Arguments," the Examiner states:

Applicant also argues that the overcoat of Liang never functions as a material of an electro-optic component as claimed. The examiner disagrees and maintains that the sealing composition functions as an electro-optic component. As shown in Figure 8, the sealing composition is placed between the conductive film and the liquid crystal composition. Due to its placement in the pixel between the conductive film and the liquid crystal composition, it must be both electrically conductive and transparent and therefore functions as an electro-optic component.

According to the Examiner's reasoning, the fact that the sealing layer is electrically conductive and transparent renders the layer electro-optic. As is well known, the term electro-optic pertains to the alteration of an optical property by application of an electric field to a material. For example, the index of refraction or the optical absorption of a material may be altered by the application of an electric field. However, just because a material is both electrically conductive and optically transparent does not mean that application of an electric field will result in a change in an optical property of the material. Respectfully, therefore, Applicants submit that the overcoat layer of the reference to *Liang, et al.* is not an electro-optic layer as claimed. Therefore, Applicants respectfully submit that the applied art fails to disclose at least two switchable electro-optical layers, comprising at least one first fluid and a second fluid respectively, as specifically claimed.

## **2. The applied art fails to disclose the immiscible fluid as claimed**

The Office Action concedes that the reference to *Iwauchi, et al.* fails to disclose the display device comprising two immiscible fluids. The Office Action turns to the reference to *Liang, et al.* in an attempt to cure this deficiency. In particular, the Office Action relies on paragraph [0059] of *Liang, et al.* for a teaching of a second fluid material that is not miscible with the first fluid material. Applicants respectfully submit that the reference fails to cure the conceded deficiency.

At paragraph [0059] the reference to *Liang, et al.* discloses that the intermixing of the overcoat layer and the LC layer is significantly suppressed by the formation of a thin barrier layer. This is not the same as providing two immiscible layers. In the same paragraph, the reference discloses that to further

reduce the degree of intermixing, the specific gravity of the overcoating is desirably less than that of the LC material; and that volatile solvents may be used to adjust the volatility and thickness of the coatings. Finally, the paragraph relied upon in the Office Action notes that if a volatile solvent is used it is preferable that it is immiscible with the LC or the dye. Thus, the solvent used to control volatility and thickness may be immiscible with the LC or dye. Clearly this is not the same as the **claimed first and second immiscible fluids of the at least two switchable electro-optical layers.**

For at least the reasons set for the above, Applicants respectfully submit that claim 1 and the claims that depend therefrom, and claim 13 are patentable over the applied art.

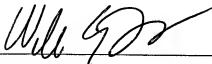
### **Conclusion**

In view of the foregoing, applicant(s) respectfully request(s) that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance.

If necessary, the Commissioner is hereby authorized in this, concurrent, and further replies to charge payment or credit any overpayment to Deposit Account Number 50-0238 for any additional fees, including, but not limited to, the fees under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17.

If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below:

Respectfully submitted on behalf of:  
Phillips Electronics North America Corp.

A handwritten signature in black ink, appearing to read 'Will S. Francos', is written over a horizontal line.

by: William S. Francos (Reg. No. 38,456)

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